

This listing of claims will replace all prior versions
and listings of claims in the application:

Listing of Claims:

Claims 1-28 (Cancelled)

-29-(Currently amended)

A method for producing an antibody against a
Sarcocystis neurona antigen selected from the group
consisting of a 16 ~~(±4)~~ (+/-4) kDa antigen and a 30 ~~(±4)~~
(+/-4) kDa antigen, as determined by SDS polyacrylamide
gel electrophoresis, comprising:

(a) providing a *Sarcocystis neurona* antigen
selected from the group consisting of the 16 ~~(±4)~~ (+/-4)
kDa antigen and the 30 ~~(±4)~~ (+/-4) kDa antigen;

(b) admixing the antigen with an adjuvant to
produce an admixture;

(c) immunizing a mammal with the admixture to
produce antibodies against antigen; and

(d) removing serum from the immunized mammal
and isolating from the serum the antibody against the
Sarcocystis neurona antigen selected from the group
consisting of the ~~(±4)~~ (+/-4) 16 kDa antigen and the

~~(+/-4)~~ (+/-4) 30 kDa antigen.

-30-(Currently amended)

A method for producing a monoclonal antibody against a *Sarcocystis neurona* antigen selected from the group consisting of a 16 ~~(+/-4)~~ (+/-4) kDa antigen and a 30 ~~(+/-4)~~ (+/-4) kDa antigen, as determined by SDS polyacrylamide gel electrophoresis, comprising:

(a) providing a microorganism containing a DNA encoding a fusion polypeptide in which a *Sarcocystis neurona* antigen selected from the group consisting of the 16 ~~(+/-4)~~ (+/-4) kDa antigen and the 30 ~~(+/-4)~~ (+/-4) kDa antigen;

(b) admixing the antigen with an adjuvant to produce an admixture;

(c) inoculating mice with the admixture to produce antibodies against antigen;

(d) removing the spleens from the mice which produce the antibodies against the antigen;

(e) removing spleen cells from the spleens and mixing the spleen cells from the spleens with mouse

MSU 4.1-528
Appl. No. 09/669,833
September 5, 2003
Reply to Office Action of July 15, 2003
And Notice of Non-Compliant Amendment
Mailed August 27, 2003

20 myeloma cells to produce a mixture of fused cells
consisting of spleen cells fused to myeloma cells, the
spleen cells, and the myeloma cells;

(f) selecting the fused cells on cell culture
medium in which the fused cells can grow but in which
the spleen cells and the myeloma cells cannot grow; and

25 (g) screening the fused cells for fused cells
which produce the monoclonal antibody against the
Sarcocystis neurona antigen selected from the group
consisting of the 16 ~~(+/-4)~~ (+/-4) kDa antigen and the 30
~~(+/-4)~~ (+/-4) kDa antigen to produce the monoclonal
30 antibody.

Claim 31 (Cancelled)

Claims 32-35 (Cancelled)

Claims 36-50 (Cancelled)